

# SVENSK STANDARD

## SS-EN 15004-7:2017

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### **Fasta släcksystem – Gasläcksystem – Del 7: Fysiska egenskaper och systemutförande avseende gasläckssystem för IG-01 släckmedel (ISO 14520-12:2015, modifierad)**

### **Fixed fire fighting systems – Gas extinguishing systems – Part 7: Physical properties and system design of gas extinguishing systems for IG-01 extinguishant (ISO 14520-12:2015, modified)**



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Europastandarden EN 15004-7:2017 gäller som svensk standard. Detta dokument innehåller den officiella engelska versionen av EN 15004-7:2017.

Denna standard ersätter SS-EN 15004-7:2008, utgåva 1.

The European Standard EN 15004-7:2017 has the status of a Swedish Standard. This document contains the official version of EN 15004-7:2017.

This standard supersedes the Swedish Standard SS-EN 15004-7:2008, edition 1.

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Denna standard är framtagen av kommittén för Fasta släckmedel, Sprinkler och Gasläcksystem, SIS/TK 360/AG 03.

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EUROPEAN STANDARD

EN 15004-7

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2017

ICS 13.220.20

Supersedes EN 15004-7:2008

English Version

Fixed firefighting systems - Gas extinguishing systems -  
Part 7: Physical properties and system design of gas  
extinguishing systems for IG-01 extinguishant (ISO 14520-  
12:2015, modified)

Installations fixes de lutte contre l'incendie -  
Installations d'extinction à gaz - Partie 7 : Propriétés  
physiques et conception des systèmes pour agent  
extincteur IG-01 (ISO 14520-12:2015, modifiée)

Ortsfeste Brandbekämpfungsanlagen - Löschanlagen  
mit gasförmigen Löschmitteln - Teil 7: Physikalische  
Eigenschaften und Anlagenauslegung für Löschmittel  
IG-01 (ISO 14520-12:2015, modifiziert)

This European Standard was approved by CEN on 25 September 2017.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

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## European foreword

This document (EN 15004-7:2017) has been prepared by Technical Committee CEN/TC 191 “Fixed firefighting systems”, the secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by June 2018, and conflicting national standards shall be withdrawn at the latest by June 2018.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 15004-7:2008.

The text of the International Standard ISO 14520-12:2015 from Technical Committee ISO/TC 21 “Equipment for fire protection and firefighting” of the International Organization for Standardization (ISO) has been taken over as a European Standard by Technical Committee CEN/TC 191 “Fixed firefighting systems”, the secretariat of which is held by BSI, with common modifications which are indicated by a straight line in the margin of the text.

This European Standard will consist of the following parts, under the general title *Fixed firefighting systems – Gas extinguishing systems*:

- Part 1: *Design, installation and maintenance*;
- Part 2: *Physical properties and system design of gas extinguishing systems for FK-5-1-12 extinguishant*;
- Part 3: *Physical properties and system design of gas extinguishing systems for HCFC Blend A extinguishant*;
- Part 4: *Physical properties and system design of gas extinguishing systems for HFC 125 extinguishant*;
- Part 5: *Physical properties and system design of gas extinguishing systems for HFC 227ea extinguishant*;
- Part 6: *Physical properties and system design of gas extinguishing systems for HFC 23 extinguishant*;
- Part 7: *Physical properties and system design of gas extinguishing systems for IG-01 extinguishant*;
- Part 8: *Physical properties and system design of gas extinguishing systems for IG-100 extinguishant*;
- Part 9: *Physical properties and system design of gas extinguishing systems for IG-55 extinguishant*;
- Part 10: *Physical properties and system design of gas extinguishing systems for IG-541 extinguishant*.

The International Standards ISO 14520-2 and ISO 14520-11, which dealt with CF<sub>3</sub>I and HFC 236fa extinguishants, respectively, have not been implemented by CEN, as CF<sub>3</sub>I is only valid for local application and HFC 236fa extinguishant is only applicable for portable fire extinguishers and local application, respectively, which is not covered by the scope.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

**SS-EN 15004-7:2017 (E)**

**1 Scope**

**1.1** This document specifies requirements for gaseous fire-extinguishing systems, with respect to the IG-01 extinguishant. It includes details of physical properties, specification, usage and safety aspects.

**1.2** This document is applicable for systems operating at nominal pressures of 160 bar, 200 bar and 300 bar at 15 °C. This does not preclude the use of other systems, although design data for other pressures are not available at this time.

**2 Normative references**

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 15004-1:2017, *Fixed firefighting systems - Gas extinguishing systems - Part 1: Design, installation and maintenance*

**3 Terms and definitions**

For the purposes of this document, the terms and definitions given in EN 15004-1 apply.

**4 Characteristics and uses**

**4.1 General**

Extinguishant IG-01 shall comply with the specification shown in Table 1.

IG-01 is a colourless, odourless, electrically non-conductive gas at ambient (20 °C) temperatures, with a density approximately 1,4 times that of air.

The physical properties are shown in Table 2.

IG-01 extinguishes fires mainly by a reduction of the oxygen concentration in the atmosphere of the hazard enclosure.

**Table 1 — Specification for IG-01**

<b>Property</b>	<b>Requirement</b>
Purity	99,9 % by volume, min.
Moisture	50 ppm by mass, max.
Suspended matter or sediment	None visible